AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A method for auditing an optical network, comprising the steps of:

transmitting a query to a hardware device in said optical network;

receiving a response to said query;

analyzing said response to said query;

producing ~~a~~ an audit report of said response and said analysis wherein said audit report is based on network configuration information; and

transmitting a second query to said hardware device, said second query based on said response to said first query, in order to gather status information of said hardware device.

2. (canceled)

3. (original) The method described in Claim 1, wherein said report includes recommendations associated with the management of said network.

4. (original) The method described in Claim 1, wherein at least a portion of said network is implemented as a DWDM optical network.

5. (original) The method described in Claim 1, wherein said hardware device is a portion of said network's infrastructure.

6. (original) The method described in Claim 1, wherein said hardware device is a DWDM device.

7. (currently amended) The method described in Claim 1, wherein said step of transmitting said transmitted ~~query codes~~ queries is accomplished entirely within said optical network.

8. (currently amended) The method described in Claim 1, wherein said transmitted ~~query codes~~ queries are generated by a dedicated network audit device.

9. (original) The method described in Claim 1, wherein said receiving of said received responses is accomplished entirely within said network.

10. (currently amended) The method described in Claim 1, wherein said first query ~~code~~ requests information related to the part number and location in said optical network of said hardware device.

11. (currently amended) The method described in Claim 1, wherein said second query ~~code~~ is determined by database reference to the hardware type of said hardware device.

12. (previously presented) The method described in Claim 1, wherein a further step of analyzing said responses to said queries is performed by automated intelligent decision-making.

13. (currently amended) A system for auditing an optical network, comprising:

two or more computer systems;

an optical network coupled to said computer systems, said network communicatively coupled with said computer systems, said optical network comprising an optical medium and optical devices for providing a communication link between said computer systems; and,

a device coupled to said optical network that is capable of transmitting queries in said optical network to said optical devices,

wherein first and second queries are transmitted to at least one of said optical devices ~~and wherein~~ with the second query ~~is~~ being based on said response to said first query and wherein an audit report of said response based on network configuration information is produced.

14. (previously presented) A system as described in Claim 13 wherein at least a portion of said optical network is implemented as a DWDM optical network.

15. (previously presented) A system as described in Claim 13 wherein said system further comprises a device coupled to said optical network capable of receiving responses to said transmitted queries.

16. (previously presented) A system as described in Claim 13 wherein at least one of said computer systems comprises a data storage device, capable of storing instructions for transmitting said queries in said optical network.

17. (previously presented) A system as described in Claim 13 wherein at least one of said computer systems comprises a data storage device, capable of storing instructions for receiving responses to said queries in said optical network.

18. (previously presented) A system as described in Claim 13 wherein at least one of said computer systems is capable of automatically analyzing said responses to said queries.

19. (previously presented) A system as described in Claim 13 further comprising a device capable of presenting said responses and said analysis in a user readable format.

20. (currently amended) A device for auditing an optical network, comprising:

a transmitting element coupled to said optical network;

a receiving element coupled to said optical network; and,

a computing element, coupled to said optical network, wherein said device for auditing an optical network is capable of formulating and transmitting queries to devices in said optical network and receiving responses to said queries

wherein first and second queries are transmitted to at least one of said devices and ~~wherein~~ with the second query ~~is~~ being based on said response to said first query and wherein an audit report of said response that is based on network configuration information is produced.

21. (previously presented) A device as described in Claim 20 wherein said device is further capable of automatically analyzing said responses to said queries.

22. (currently amended) A device as described in Claim ~~20~~ 21 wherein said device is further capable of presenting the results of said automatic analyzing in a user-readable format.

23. (previously presented) A device as described in Claim 20 wherein said device is further capable of making recommendations for appropriate action in the management of said optical network.

24. (previously presented) A device as described in Claim 20 wherein at least a portion of said optical network is implemented as a DWDM optical network.

25. (currently amended) A computer useable medium having computer useable code embodied therein causing a computer to perform operations comprising:

transmitting a query to a hardware device in said optical network;

receiving a response to said query;

analyzing said response to said query;

producing a report of said response and said analysis; and

transmitting a second query to said hardware device, wherein said second query is based on said response to said first query and wherein an audit report of said response that is based on network configuration information is produced.

26. (previously presented) The computer useable medium in Claim 25, wherein said report includes recommendations associated with the management of said optical network.

27. (previously presented ) The computer useable medium described in Claim 25, wherein at least a portion of said optical network is implemented as a DWDM optical network.

28. (previously presented) The computer useable medium described in Claim 25, wherein said hardware device is a portion of said optical network's infrastructure.

29. (previously presented) The computer useable medium described in Claim 25, wherein said hardware device is a DWDM device.

30. (previously presented) The computer useable medium described in Claim 25, wherein said step of transmitting said query is accomplished entirely within said optical network.

31. (previously presented) The computer useable medium described in Claim 25, wherein transmitted queries are generated by a dedicated network audit device.

32. (previously presented) The computer useable medium described in Claim 25, wherein said receiving of said received responses is accomplished entirely within said optical network.

33. (previously presented) The computer useable medium described in Claim 25, wherein said first query requests information related to a part number and location in said optical network of said hardware device.

34. (previously presented) The computer useable medium described in Claim 25, wherein said second query is determined by database reference to the hardware type of said hardware device.

35. (previously presented) The computer useable medium described in Claim 26, wherein a further step of analyzing said responses to said queries is performed by automated intelligent decision-making.

36. (currently amended) A system for auditing an optical network, comprising:

transmitting means for transmitting a query to a hardware device in said optical network;

receiving means for receiving a response to said query;

analyzing means for analyzing said response to said query; and

report producing means for producing ~~a~~ an audit report of said response wherein said audit report is based on network configuration information, and

wherein said transmitting means transmits a second query to said hardware device,

said second query being based on said response to said first query, in order to gather status information of said hardware device.

37. (previously presented) The system described in Claim 36, wherein said report includes recommendations associated with the management of said network.

38. (previously presented) The system described in Claim 36, wherein at least a portion of said optical network is implemented as a DWDM optical network.

39. (previously presented) The system described in Claim 36, wherein said hardware device is a portion of said optical network's infrastructure.

40. (previously presented) The system described in Claim 36, wherein said hardware device is a DWDM device.

41. (previously presented) The system described in Claim 36, wherein said transmitting is accomplished entirely within said optical network.

42. (previously presented) The method described in Claim 36, wherein said receiving is accomplished entirely within said optical network.

43. (previously presented) The method described in Claim 36, wherein said first query requests information related to a part number and location in said optical network of said hardware device.

44. (previously presented) The method described in Claim 36, wherein said second query is determined by reference to the hardware type of said hardware device.